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U.S. Department of Agriculture
Washington, D. C.

No. 4

CATALOGUE

OF

Phylloxera-Resisting American Grapes

California Nursery Company

1903

NILES, CALIFORNIA

TO CORRESPONDENTS

1st. All orders should be sent in as early as possible.

2d. Orders should be legibly written out on a separate sheet and not mixed up in the body of the letter, thereby saving us a great deal of trouble, and tending to prevent mistakes.

3d. Plants are carefully labeled, and securely packed in the best manner, for which a moderate charge, sufficient to cover cost of material only, will be made; but no charge is made for the delivery of packages at the railroad or express offices at Niles.

4th. It is requested that explicit directions for marking and shipping packages accompany each order. When it is left for us to choose the mode of conveyance, we will exercise our best judgment; but as all articles are at the risk of the purchaser after being shipped, we must not be held responsible for any loss or delay that may occur through the negligence of the forwarders.

5th. Our customers are requested to notify us immediately of any errors that may be committed in filling their orders, so that we may at once rectify the same, as we desire to conduct our business in all respects satisfactorily to those who favor us with their confidence.

6th. Orders from unknown correspondents *must* be accompanied by the cash, or satisfactory reference. Orders to be sent C. O. D. *must* be accompanied by at least one-half the amount in cash; otherwise, they will receive no attention.

7th. Remittances may be made by draft on San Francisco, Wells, Fargo & Company's and postoffice money orders on Niles, or cash by express prepaid.

All communications to be addressed to

CALIFORNIA NURSERY COMPANY,

NILES, CALIFORNIA.

REMARKS

We take pleasure in submitting herewith to our friends and the public in general, our Catalogue of Phylloxera-Resisting American Vines. We are grateful for the liberal patronage which we have enjoyed in the past and return sincere thanks to our numerous customers. From those who have not dealt with us heretofore, we solicit at least a trial order. A cordial invitation is extended to all to visit our grounds, whether as intending purchasers or otherwise.

To reach our Nursery from San Francisco, take the broad-gauge ferry boat for Oakland, leaving at 8:00, 8:30 A. M. and 12:00 M., and 3:30, 4:00, 4:30 and 6:00 P. M. These make close connections with through trains direct to Niles. From Sacramento and all points centering there, the train leaving at 10:25 A. M. for San Francisco, via Lathrop, Tracy, Livermore, etc., should be taken. From San Jose and its southern connections, trains leaving at 5:15, 6:15, 8:40 and 9:30 A. M., and 12:35 and 4:35 P. M.

Very Respectfully,

CALIFORNIA NURSERY COMPANY.

WM. J. LANDERS, President, H. W. MEEK, Vice-President,
JOHN H. HENN, Secretary, CENTRAL BANK, Oakland, Treasurer,
JOHN ROCK, Manager.

DIRECTORS:

WM. J. LANDERS, JOHN H. HENN, F. W. HOSMER,
A. C. HAMMOND, JR., E. B. STONE, W. G. PALMANTEER,
H. W. MEEK.

Phylloxera-Resisting American Vines

Resistant Vines are now being generally planted in all parts where phylloxera has made its appearance. The progress of this pernicious insect has been slow in California, but wherever it has appeared, it has been found necessary to graft on Resistant stocks. Only in isolated districts where phylloxera is not likely to reach, is it safe to plant the European grapes on their own roots. The great value of Resistant stock may be judged from the fact that since the almost total destruction of the vines of France, that country has replanted its vineyards with Resistant stocks, and now possesses about two million acres of vines grafted on Phylloxera-Resisting roots. The yield of wine in France which once had dwindled down to an insignificant figure, has in consequence increased to such an extent, that it is now several million gallons greater than it was before the advent of the phylloxera. In California the use of Resistant stocks has proven as great a success as in France.

Planting—In planting Resistant Vines the ground should be well prepared by deep ploughing or sub-soiling. This is especially necessary in heavy clay and compact soil, which must be loosened up, otherwise the growth will be very slow. Ploughing and sub-soiling removes the excess of water from wet soils and diminishes their coldness in wet seasons. Holes should be dug of sufficient size to allow at least six inches of loose soil below and around the roots after planting. In sub-soiled land such large holes are not required.

The pruning of roots should be according to size of plants. Small vines should be shortened back to four inches; on large ones six inches should be left. When any manure or fertilizer is used, from two to four inches of soil should be placed over the roots before applying. Set the vines as deep as they stood before and tamp the ground firmly around the plant so that water will not accumulate and remain around the vine preventing the formation of new roots. Tops should be pruned back to within two inches *of old* wood. In land where vines have already been grown and uprooted it is best to let the ground rest for several years or plant it to grain. Cultivate well the first season after planting.

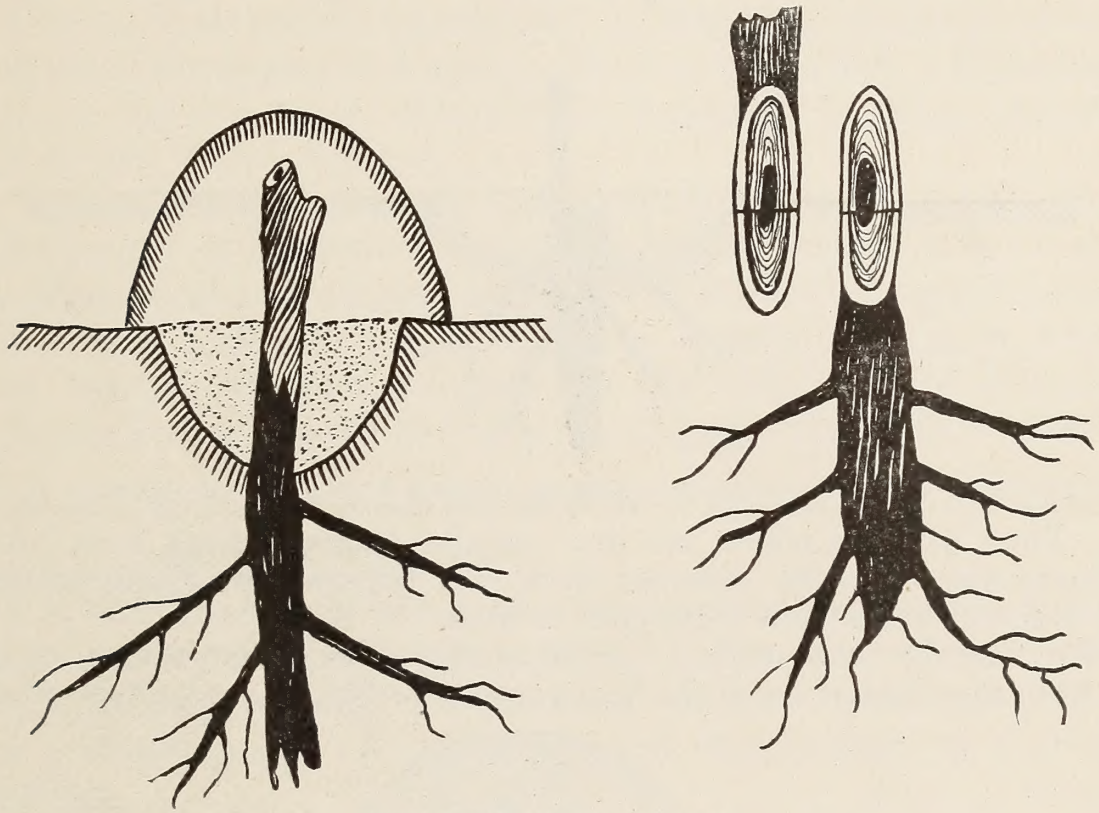
Grafting—This can be done the second year after planting if the vines are of sufficient size to hold the grafts. The larger vines are best cleft grafted, in smaller ones the whip-tongued graft is desirable. To whip-graft, stock and scion are both spliced as in cut.

It is best that stock and scion should be of same diameter; if not scion should be set in on one side so that inner barks fit together. The length of splice depends on the size of the stock and should be long enough to secure a strong grip. The cuts should be made as close as possible to the nodes or joints as this is the point where the knitting tissue is formed with the greatest facility. When taking the knife out of the slit a slight rotary movement is given to the knife so as to leave the slit open and facilitate the

insertion of the tongue. Care must be taken not to push the scion too far down so its lower lip does not overlap the cut on stock otherwise the callus on scion would raise it and make a bad union. Tying is done with Raffia or waxed cotton 4-ply twine.

Stocks over one-half inch in diameter are best cleft grafted (see cut). The vines are squarely cut off with the level of the ground; a longitudinal cleft from the top downward is made and a wedge shaped scion is inserted.

If stocks are not of sufficient size to hold the grafts firm they should be tied with raffia or twine. As soon as grafting is done, grafts should be entirely covered with fine soil to a depth of from one to two inches above

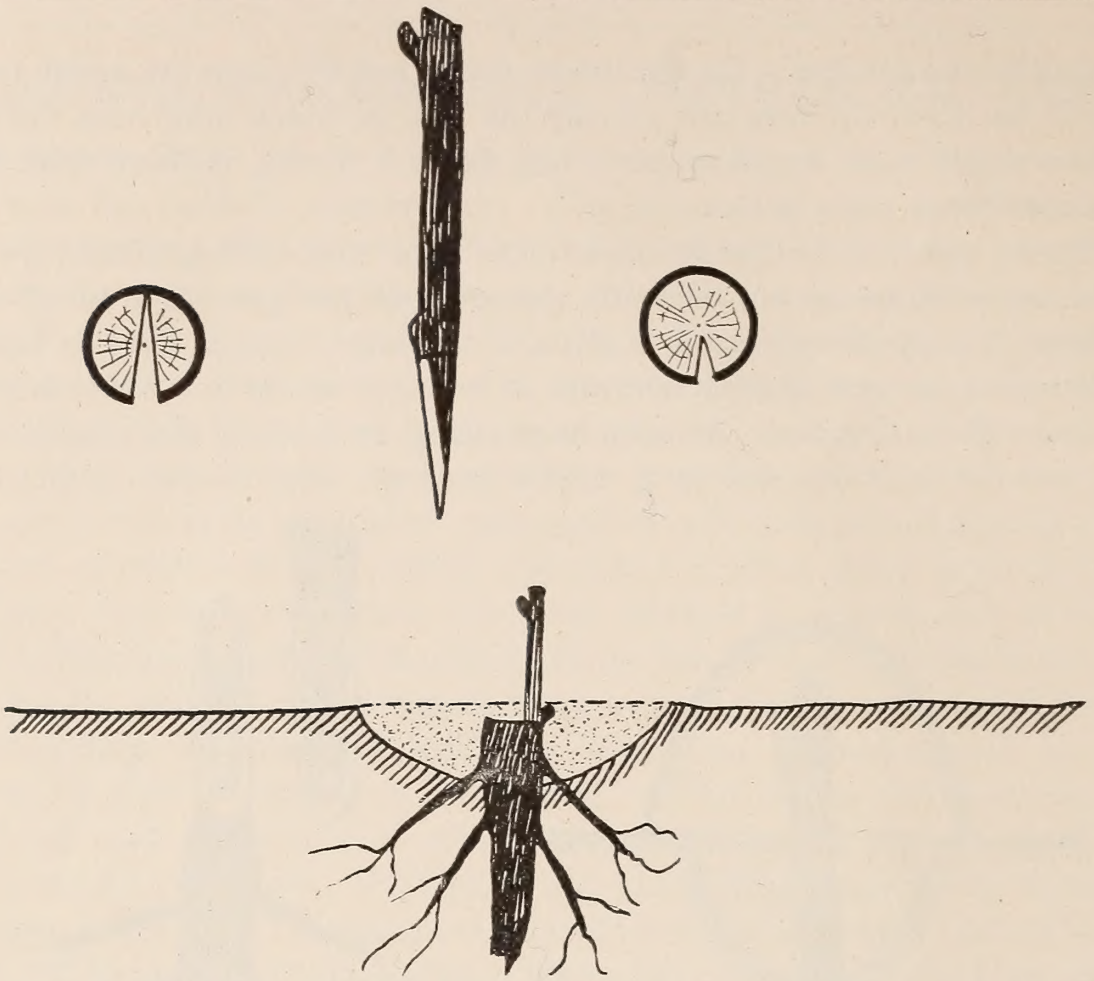


WHIP-TONGUE GRAFT.

graft and a stake set to each vine so the young shoots can be tied up as fast as they grow.

In July or August all grafts should be examined, the soil removed and the tyings cut off, also any roots that have started from the scion should be cut off and the grafts covered again with soil so as to exclude the air from the grafts. To all who intend planting resistant vines we recommend the new Hybrids of American Vines and suggest that they plant only a few of each variety and determine which is best adapted to their soil and thus save much time and money which would be lost by experimenting on a large scale with varieties not suited to their locality and soil. The Vinefera x American hybrids will make good resistant stock in some soils where the Riparia and Rupestris do not succeed and take the graft more readily.

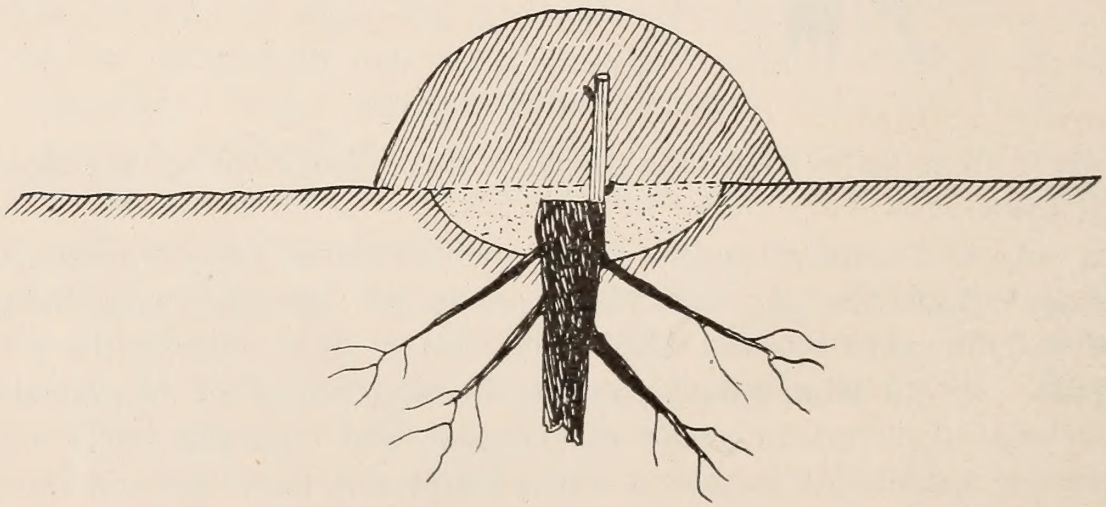
Experience has shown that different localities and soils require different varieties of Resistant stocks, in order that the best results may be



CLEFT GRAFT.

had. Thus, hillsides which are dry, require different vines from hillsides which are wet, dry soils different from wet bottom lands, and calcareous soils, different vines from those poor in lime.

We have for years made a special study of Resistant stocks, profiting both from the experience of the Vineyardists in France, as well as from the



CLEFT GRAFT COVERED.

California growers. The varieties which we now offer are selected from the choicest found in France. They have all been successfully grown in our Nurseries and can be relied on to do well, if planted in soils suitable to their nature. All these varieties may be used as stocks for grafting, while some may be used also as direct producers.

Varieties of Resisting Vines Suitable to Certain Soils.

For moist, rich and mellow soils, Riparia, Riparia a grandes feuilles, Riparia Gloire de Montpellier, Solonis.

For soils containing salt and alkali, such as bottom lands annually flooded, etc. Solonis, Solonis Robusta, Solonis X Othello.

For moist lands, but which are not of the first quality. Solonis X Riparia No. 1616, Solonis Robusta, Solonis and its varieties, Aramon X Rupestris Ganzin No. 1, Morvedre X Rupestris No. 1202, Berlandieri X Riparia No. 420 A, Hybrid Franc.

For dry and gravelly soils. Rupestris Martin, Rupestris St. George, Aramon X Rupestris Ganzin No. 2, Rupestris Metallica, Rupestris Mission, Berlandieri X Rupestris No. 219, Berlandieri X Rupestris No. 301 A, Hybrid Franc, Monticola X Rupestris, Champini, Riparia X Rupestris Martin No. 3309.

For heavy, compact soils. Aramon X Rupestris Ganzin No. 2, Bourisquou X Rupestris No. 601, Morvedre X Rupestris No. 1202.

For calcareous and chalky soils. Berlandieri X Rupestris No. 219 A, Riparia X Rupestris 101-14, Riparia X Rupestris No. 3306, Rupestris St. George, Morvedre X Rupestris No. 1202, Aramon X Rupestris Ganzin No. 1, Riparia X Rupestris No. 3309, Monticola X Rupestris.

AMERICAN VINES AND THEIR HYBRIDS

Alicante x Rupestris No. 20.

A hybrid between the well-known Alicante and the resistant Rupestris. Fertile and resistant to phylloxera even in calcareous soils. Bunch and fruit small but abundant. Grapes black. Gives a good wine, dark and rich. Matures early. A fine grower and very suitable as a stock for grafting.

Aramon x Rupestris-Ganzin No. 1.

All growers admit that this variety is one of the most vigorous, as well as one of the most resistant to the phylloxera. It is valuable for all soils of a calcareous-clay nature, and for all alluvial soils underlaid by an impenetrable, hard sub-soil. Requires a somewhat moist soil. In dry soil the following variety is preferable. Does well on hilisides.

Aramon x Rupestris-Ganzin No. 2.

In all arid and sandy soils this variety is preferable to the preceding. In such soils, as well as in compact clays, it supports the graft well. Of vigorous growth. Should not be planted in moist soils, but does well on hillsides.

Berlandieri.

This is noted for its grafting facilities and for the productiveness of the graft which it carries. No difference in size between the stock and the

scion has been produced and sometimes the stock will grow even faster than the scion. The resistance to phylloxera and superiority of resistance to chlorosis of the Berlandieri are actually without doubt. The difficulty of growing the Berlandieri from cuttings has been overcome by the Americo-American hybrids with Rupestris and Riparia that grow readily from cuttings. The hybrids are fully resistant to chlorosis and phylloxera.

Berlandieri Resseguier No. 1.

A new variety largely grown in the Pyrenees, France, on dry and poor soil.

Berlandieri x Riparia No. 420 A.

This hybrid, though yet rare, is one of the most promising and can be recommended for extensive culture. It is vigorous and hardy, and, partaking of the Berlandieri characteristics, it withstands both drying winds, and the drying up of the soils. The Berlandieri x Riparia hybrids are recommended for bottom lands with deep soil, or for mesa lands where the soils are heavily charged with moisture during the spring, but which dry out during the summer and fall.

Berlandieri x Riparia No. 34 Ecole.

A very strong growing hybrid—has all the good qualities of the above.

Berlandieri x Rupestris No. 219 A.

One of the best-known of the Berlandieri hybrids. Very vigorous and resistant to phylloxera. Leaves are large, broader than long, smooth on the upper surface. Thrives well in dry soils. Makes a perfect union with the graft. The roots are strong and branching and strike deeply into the ground.

Berlandieri x Rupestris No. 301 A.

A vigorous hybrid which resists both the phylloxera and chlorosis. The roots are large, with a tendency to strike deep and thus to reach moisture. Very suitable in dry, rocky and gravelly soils.

Bourisquou x Rupestris No. 601.

Very fertile; bunches and fruit large and may be used as a direct bearer. It does well in heavy clay soils. Supports the graft well and makes a good union. Ripens late.

Champini, or Rupestris x Candicans.

An interesting hybrid between the two species, Rupestris and Candicans, but partaking more of the characteristics of Candicans. Does well in dry soils, but its resistance to phylloxera requires more study.

Chasselas x Berlandieri No. 41.

A new hybrid that will grow in calcareous soil. Resists phylloxera and chlorosis.

Clairette doree Ganzin.

A hybrid between Clairette and Rupestris. It is very fertile, with oblong, shouldered bunches. Fruit golden yellow with small black points. May be used as a direct bearer as well as stock for grafttng.

Cabernet x Berlandieri No. 333. (Tisserand)

This hybrid between Cabernet and Berlandieri is said to have a resistance similar to that of Riparia. It is used especially in lime soils of an extreme chalky nature, and resists more the chlorosis than any of the purely resistant stocks of the Americo-American hybrids. May be used as a direct bearer, but is generally planted for stock.

Gamay x Couderc (Columbeau x Rupestris No. 3103.)

A fertile and phylloxera-resisting hybrid. Suitable also on chalky and lime soils. Bunches large, shouldered, fruit black. Suitable for stock, as well as for direct bearing.

Hybride Fenouil.

A new hybrid of late introduction, claimed to be of extraordinary fast growth.

Hybride Franc.

This splendid hybrid between Cabernet Sauvignon and Rupestris is one of the best hybrids so far produced between a resistant stock and an Asiatic grape. It may be used both as a direct bearer and as a stock for grafting. It is especially adapted to dry, calcareous soils. It produces a fine, dark-colored wine of very good quality. The originator, M. Franc, was honored by being made a Chevallier bv the French Minister of Agriculture, as a token of the benefits to be derived by France from the production of this fine grape. It is the only hybrid between resistant varieties and the Vinifera which in France has given promise of any great future. It has fruited in several places in California as well as with us. It is very productive, has small bunches; berries medium size, thin skin, of an intensely deep black color and prominent flavor. It is entirely resistant to phylloxera and chlorosis.

Hybride Seibel No. 1.

A hybrid between Alicante and Rupestris. A vigorous grower and heavy bearer. Bunches shouldered and large. Berries medium in size. Black. Gives a fair quality of wine from its grapes and is one of the few hybrids which are not deficient in sugar.

Hybride Seibel No. 2.

A hybrid between the Vinifera Cinsault and the resistant Rupestris. Very fertile with large, shouldered bunches. Berries medium in size, of a black color. Used as a direct bearer.

Lenoir.

This old-established variety is by Prof. Munson considered as belonging

to the Vinifera class, though other good judges of classiffcation hold it to be an American species, or at least an American hybrid. It withstands the phylloxera fairly well. It produces a fair crop of valuable grapes which produce good wine. In France it is much less resistant than in America. In some parts of this country Lenoir has survived the attacks of the phylloxera for twenty years in places where the Vinifera grapes have enlirely died out. This grape does not grow well from cuttings and only rooted vines should be planted in the vineyard. Requires heavy and clay soils. In France this variety is also known as Jacque.

Morvedre x Rupestris No. 1202.

This is the most promising stock for all calcareous soils of a moist nature, but it does not thrive well in calcareous dry soils. Its superiority is manifest in all deep marls as well as in all clay-lime soils underlaid with marls, and in all alluvial lime soils. It is safe for the phylloxera in all soils except in those exceedingly gravelly. Very vigorous, supporting the graft well. Also used as a direct bearer, but is then subject to Colure.

Riparia.

This is one of the most valuable of all the resistant vines. It is highly resistant, if not the most resistant to the phylloxera, but it takes the graft exceedingly well and makes a fine union. It communicates great fertility to the European grapes and makes a first-class stock. But it is only suitable to certain localities, such as deep alluvial moist soils which never dry out during any time of the year. It may be preferably planted in all regions where irrigation is practiced and is the proper stock for raisin grapes in localities where the soil is moist or even wet. The roots of the Riparia strike out sideways and do not go deep into the soil for moisture. It does well on moist hillsides, as for instance, in the Coast Range in California. It should, however, never be planted on dry hillsides or in places where there is underlying hardpan or gravelly dry layers. If in vineyards otherwise suited to Riparia, there are dry places with shallow soil, such places should always be planted with any of the Berlandieri or Rupestris varieties of hybrids.

Riparia, a grandes feuilles.

A large-leaved variety of Riparia. Suitable as stock for grafting in moist places, or in river bottoms. It is a strong and vigorous grower, and one of the best of the Riparia varieties. Its foliage is shiny and remarkably healthy.

Riparia, Glroie de Montpellier.

This variety, which is also known as Portalis, is one of the very best resistant stocks known. It is incomparable for all soils which are moist, deep, rich and mellow. It is not suited to soils which are compact, hard and dry. Its roots show a remarkable activity and growth, and require

the best conditions. It is a most vigorous plant, with leaves which are inflated between the ribs. The strong nature of this vine enables it to adapt itself to conditions during which other Riparias would be a failure, but in order to achieve the greatest success it should be limited to such qualities of soils as are mentioned above. In such soils it is without an equal.

Riparia, Grand Glabre.

This is also a good variety with a little different leaf from the last mentioned. The surface of the leaf is almost smooth and not inflated. It withstands the drought better than Riparia Gloire de Montpellier, but is otherwise less vigorous than that variety.

Riparia x Rupestris No. 101-14 (Millardet).

This is a very vigorous growing variety and takes the graft well. Suitable for limestone soils.

Riparia x Rupestris No. 3306.

This variety was raised by M. Couderc and reported by him as a strong grower, taking the graft well. Adapted to limestone soils.

Riparia x Rupestris Martin No. 3309.

A very vigorous hybrid. It partakes of the nature of Rupestris and does well in rocky, gravelly and calcareous soils of a comparatively dry nature. It supports the graft well. It has been tested in California, and some prefer it even to Rupestris St. George. It does well in compact, dry and clay soils, as well as in dry, rocky soils, provided they are not impregnated with stagnant water.

Rupestris.

This is also one of the most extensively used species for resistant stocks. It is entirely proof against the phylloxera and its nature is such that it may be planted in dry soils. A native of Texas. It is of a vigorous constitution, and unites well with the graft. Rupestris possesses some advantages over Riparia, but it is not like that variety, suitable to be grown in wet lands or soils. It remains throughout its growth of the same thickness as the graft and does not need to be supported during the first few years. Rupestris has given us a great number of valuable varieties and hybrids, many of which are considered as among the most desirable on which to graft. It is a strong and erect grower, and will succeed in dry and gravelly soils where other varieties fail. It differs from Riparias in that its roots strike deeply in the ground. It takes the grafts with great facility.

Rupestris des Caussettes.

An extraordinary variety of the greatest vigor. It succeeds even in light soils.

Rupestris Metallica.

A good variety of Rupestris, with metallique, lead colored leaves. Of vigorous habit and growth. Suitable to soils of dry and gravelly nature and such as are generally poor in plant food. It takes the graft well and makes a perfect union with the scion. It is almost as resistant to chlorosis as Solonis.

Rupestris Martin.

This variety is considered to be a most excellent one, and is said to thrive in soils that are almost too dry for the Rupestris St. George. It is the most successful stock on the dry soils of the Island of Madeira. It is a great favorite with Mr. Frank T. Swett, of the Hill Girth Vineyards, Martinez, Cal. He states: "Our grafts on this stock have made a larger growth than even on Rupestris St. George. The diameter of the stock, however, is not quite as great. We are satisfied with both varieties, and it will take years to determine which is the "better."

Rupestris Mission.

This variety possesses all the good qualities of the Rupestris class. The same resistance to chlorosis as the main type, and as resistant to phylloxera as the best Riparia. It is most excellent for grafting. Spreading habit.

Rupestris St. George.

This variety is also known variously as Rupestris du Lot, Rupestris Richter, Sijas, Lacastelle, Monticola X Rupestris, Rupestris Phenomene and is probably a hybrid between Monticola and Riparia. It is one of the most popular varieties grown in France and California, and is almost unsurpassed in its many good qualities. Growth erect and strong with heavy wood. It succeeds in a greater variety of soils than any other resistant stock. It thrives well in light, dry and gravelly soils; its roots descending deeply in search of moisture. Does well also in soils charged with a heavy percentage of lime.

Solonis.

A strong, erect grower, with large foliage, doing well on either light or heavy soils, but especially suited to deep, moist or even wet soils containing stagnant water. It will do well in soils containing salt, and is the only resistant stock known which will thrive in such soils. It has been successfully grown in Santa Clara County for several years and given satisfaction.

Solonis x Riparia No. 1616.

A very strong growing variety, raised by M. Couderc. It is suitable for clay and limestone soils. Makes a good union with the graft.

Solonis Robusta.

A French hybrid from a crossing between Solonis and Riparia. It is very vigorous and possesses a stronger root than the ordinary Solonis. It is perfectly resistant and thrives in almost all soils, even those which con-

tain much salt and alkali. This vine may prove very valuable for the alkali bottom lands in our interior large valleys.

Solonis x Othello No. 1613.

A very vigorous and healty hybrid with strong and straight growth. It supports the graft well and gives it great vigor. Recommended for bottom lands with calcareous or alkaline soils. This vine is a hybrid between Solonis proper and Othello, which latter is a hybrid between the three species Vinifera x Labrusca x Riparia. It partakes of the characteristics of four distinct species of vines.

. . . CATALOGUES . . .

The following Catalogues are published, some annually, others at intervals as it becomes necessary, and are mailed free to customers as soon as issued, and to all new applicants on receipt of amount in stamps, named below:

No. 1. Descriptive Catalogue of Fruit Trees, Small Fruits, Figs, Olives, etc., 4 cents.

No. 2. Descriptive Catalogue of Shade and Ornamental Trees, Shrubs, Roses, Climbing Plants, etc., 6 cents.

No. 3. Catalogue and Price List, free.

No. 4. Catalogue of Phylloxera Resisting American Grapes, free.

California Nursery Company

JOHN ROCK, Manager

NILES, CAL., January 1st., 1903

Meyer Printing Co. 638-640 Mission St.